SPECIFICATION AMENDMENTS

[0018]   A subscriber, for example, a credit card company, also includes on each piece of mail, in addition to the optically encoded data, a written return address that is not the address of the subscriber but rather the address of the central, or one of the regional locations, of the service provider. Accordingly, when a piece of mail is undeliverable for any reason, it is returned by the post office to the return mail service provider offering the processing services of the present invention. As an alternative, a subscriber can elect to receive its own returned mail, bundle it together, and then deliver it to the return mail service provider for return mail processing. In any event, at the return mail service provider's location, thousands of pieces of undeliverable mail sent originally by many subscribers to their customers are received either directly from the post office or from subscribers.

[0019]   Referring to Fig. 1, at the return mail service provider's location, the returned mail (block 15) is received from the United States Postal Service (block 90) and passed through a high volume mail sorter 20 and optical scanner 40 by return mail sorter and data processing operators 30. The optical scanner 40 reads the information previously optically encoded onto each mail piece before it was sent. This information is conveyed to a computer based application server 50 programmed to store and process the scanned information according to the methodology of the invention. The scanned information is stored in the return mail service provider's mass storage device 60, containing a plurality of subscriber databases 62. The information scanned from the returned mail pieces may be processed in a number of ways by the return mail application server 50 depending upon the desired services to be provided. In one exemplary embodiment, the return mail application server 50 is programmed to sort the data in an appropriate way initially, for

example, by subscriber. The addresses of the addressees may then be extracted from the scanned data for processing.

[0020]   The return mail application server 50 preferably is electronically linked by a data line, which may be any conventional telecommunications data line, to the computers and databases 25 of an auxiliary address service that provides up-to-date addresses for millions of people throughout the country. These may be the same address services that historically have been accessed as a research source by the return mail handling staff of subscribers in manually updating addresses of returned mail. Software interfaces are provided on the address service's computers and database 25 and in the return mail application server 50 such that the two computers may exchange data and information electronically and automatically. In one embodiment, the application server 50 transmits to the address service's computer 25 the inaccurate and/or out-of-date address of the intended recipient of each piece of returned mail. In response, the address service provider's computer 25 returns to the return mail application server 50 the correct and up-to-date address of the intended recipient. Other information also can be accessed and downloaded such as, for example, data reflecting name changes of recipients due to marriage, or data reflecting other changes in status.

[0021]   Once the updated data is downloaded from the address service's computer 25, the application server 50 creates a database 62 for each subscriber containing a variety of information regarding the returned pieces of mail. For instance, the database 62 clearly would contain the identity of the intended recipient and the new updated address retrieved from the address service's computer 25. Any other pertinent information also may be included such as

name change information or even job or economic status changes that may be of interest or important to the subscriber.

[0022]   Once the corrected up-to-date database 62 is created for the returned mail of a subscriber, the return mail application server 50 establishes a data connection with a computer 70, 80 of the subscriber. The updated data files are then transferred electronically to the subscriber's computer 70, 80, which is provided with software to receive and interpret the data, to update the subscriber's mailing list with the new addresses contained in the data, and to update the subscriber client or customer files to reflect any other information that may be transmitted with the data. The subscriber may use this updated information as it deems appropriate. For example, the subscriber's computer may be programmed to produce immediate re-mailings of the invoices or other mail that originally was returned by the post office as undeliverable. Alternatively, the subscriber may forgo such a re-mailing and simply use the updated addresses for the next successive mailing cycle.

[0023]   Fig. 2 illustrates the processing logic performed at the returned mail application servers 50 for the handling of mail determined to be undeliverable. Processing starts in logic block 200 with the delivery of the physical envelopes to the return mail service provider from the United States Postal Service. The undeliverable mail is then fed through the mail sorter 20 with barcode optical scanner 40, as indicated in input block 202. The optical scanner 40 then reads the machine-readable information on each envelope as indicated in logic block 204. The two-dimensional barcode is then decoded from each envelope as indicated in logic block 206. Data contained on the envelope is collected and an output data file is created in output block 208. The data in this output file is then sorted by customer numbers, as indicated in logic block 210. From

this sorted data, output files are created based on the customer number as indicated in output

block 212.